A recent French study determined whether environmental rearrangements of the long-term care in nursing homes can affect disruptive behavioral and psychological symptoms of dementia (BPSD) in residents with dementia. A prospective 6-month study before (phase 1) and after (phase 2) regarding environmental rearrangements. Environmental rearrangements are categorized as: ceiling tiles resembling the sky in part of the shared premises, a progressive dimming of the lighting at night while at the same time playing soothing streaming music, then turning the lighting up during the day; walls painted in light beige; installing oversized clocks in corridors, and night teams wearing night clothes. Environmental rearrangements can be reduced following plain environmental rearrangements.
Non-pharmacologic multicomponent interventions require long follow-up to ensure uptake and beneficial effects.

Music seemed an important factor for attention in participants with AD.

A recent French study investigated whether multicomponent intervention combining communication, systematic pain management, medication review, and activities, improved quality of life (QoL) in nursing home patients with complex needs. A multicenter, cluster-randomized, simple-blinded, controlled trial was conducted in which 67 units (clusters) from 8 Norwegian municipalities were included. It treated 730 patients with or without dementia (≥65 years of age), randomized in two groups: usual care or intervention in which health care staff received standardized education and on-site training for 4 months with a follow-up at month 9. First indications showed a change in QoL as measured by QUALIDEM (QoL dementia scale); QUALID (QoL late-stage dementia scale), and EQ-VAS (European QoL visual analog scale) from the start to month 4. The study showed that during the active intervention, all 3 QoL measures worsened, 2 significantly. Follow-up analysis from month 4 to 9 showed an intervention effect on a quality of life scale. The QoL decreased in the intervention group, leading to our hypothesis that health care staff may have been overwhelmed during the intensive work intervention period. However, the decrease reversed significantly during the follow-up analysis, indicating a potential learning effect. This suggests that non-pharmacologic multicomponent interventions require longer follow-up analysis to ensure integration and beneficial effects.


ABOUT A COMPLEX INTERVENTION

A research study to evaluate whether motivation towards an exercise program is higher in a small group setting when compared to individual therapy. This study evaluated the feasibility of a music-supported, video-based group exercise program in older adults suffering from AD. A prospective observational study included 5 participants with moderate AD recruited from a nursing home. A progressive physical exercise program using video-based training with musical accompaniment was performed and digitally recorded to investigate the adherence and performed accuracy of the exercises. The study showed that the overall participation during the exercises was higher and concluded that a music-supported, video-based group exercise program is feasible in persons with AD. The participants were motivated and the expectations towards the program increased over time. Music seemed an important factor in holding the attention of participants with AD.

A REVIEW AND SYSTEMATIC ANALYSIS ON NON-PHARMACOLOGIC INTERVENTION

This study examined both pharmacological therapies such as nutrition therapy (NT) and non-pharmacologic therapies including traditional treatment or personalized treatment (e.g., physical exercise, music therapy, computerized cognitive training) for the treatment of AD or mild cognitive impairment (MCI) in numerous areas. It compared 4 types of intervention, physical exercise (PE), music therapy (MT), computerized cognitive training (CCT), and NT, in older adults with mild to moderate AD or MCI and identified the most effective intervention for their cognitive function. The study included 17 RCTs and showed with an innovative design (Bayesian network meta-analysis) that physical exercise and computerized cognitive training might be a significant improvement in treating cognition and neuropsychiatric symptoms.


A recent recommendation paper on Alzheimer’s disease (AD) concluded that a combined approach based on pharmacologic and non-pharmacologic therapies mitigate symptoms and reduce clinical progression for the patients and reduce care burden for the staff.


A recent study review using a narrative approach, highlighted current evidence on main Non-pharmacological treatment (NPT) for Alzheimer’s disease (AD) and dementia. This study was based on PubMed and the Cochrane research approach for studies written in English and published from 2000 to 2018. It concludes that the role of NPT has been largely explored in AD and dementia. The main NPT types, which were reviewed, include exercise and motor rehabilitation, cognitive rehabilitation, NPT for behavioral and psychological symptoms of dementia, occupational therapy, psychological therapy, complementary and alternative medicine, and new technologies, including information and communication technologies, assistive technology and automatic domestic equipment, virtual reality, gaming, and telemedicine. It concludes that NPT is often applied in the multidisciplinary approach to AD and dementia, supporting evidence for their use is still preliminary. Some studies showed statistically significant effect of NPT on some outcomes, but their clinical significance is uncertain.


Another review wanted to estimate the risk of perpetrating aggression in Alzheimer disease (AD) and mild cognitive impairment (MCI) by conducting a systematic review with a systematic search in six bibliographic databases. Studies that reported aggressive behavior in individuals with AD and MCI compared to healthy individuals or those with other dementia etiology were identified. The risks of aggressive behavior were assessed using random effect models to calculate pooled odds ratios (ORs). 17 studies involving 6,399 individuals with AD and 2,582 with MCI were identified. Compared to healthy individuals, significantly increased risks of aggressive behavior were found in AD but not in MCI. When comparing AD with MCI, the risk in AD was higher. We found no difference in the risk of aggressive behavior between AD and other dementia subtypes or between amnestic and non-amnestic MCI. It concluded that individuals with AD are at higher risk of manifesting aggressive behavior than healthy individuals or those with MCI. Our findings not only underline the necessity for treatment

Physical exercise and computerized cognitive training might have a significant improvement in cognition and neuropsychiatric symptoms.

Our findings not only underscore the necessity of treatment of aggressive behaviors in AD but also highlight the importance of preventing the transition from MCI to AD with non-pharmacologic approach.
The last systematic review aims to systematically evaluate the efficacy of Pet robot intervention (PRI) for people with dementia. Eight articles from six randomized controlled trials (RCTs) were included in this study. The results of the meta-analysis showed a statistically significant decrease in behavioral and psychological symptoms of dementia (BPSD), especially agitation and depression, in people with dementia who were treated with PRI. Both individual and group format PRI significantly ameliorated BPSD. There were no significant improvements in cognitive function or quality of life. The results of the meta-analysis suggest that PRI may be suitable as a treatment option for BPSD in people with dementia and should be considered as a useful tool in clinical practice.


Lastly, a study showing that non-pharmacological intervention could improve sleep disturbance. The study concludes that physical activity, mind-body practices, acupressure and chamomile extract intake demonstrated positive and promising impacts on sleep quality and nighttime sleep. Due to the small number of trials undertaken, the results should be interpreted cautiously.


A study shows that non-pharmacological interventions could improve sleep disturbing.

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